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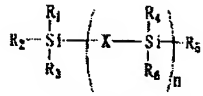
TITLE : NONAQUEOUS ELECTROLYTE AND NONAQUEOUS ELECTROLYTE SECONDARY BATTERY USING THE SAME



(1)

(式中、R_1～R_6はアルキル基、アルコキシ基、アルケニル基、アルケニルオキシ基、アルキニル基、アルキニルオキシ基、アリール基又はアリールオキシ基を示し、これらの基は鎖中にエーテル結合を有していても良い。nは0～5を示し、nが1～5の時、Xは直接結合、酸素原子、アルキレン基、アルキレンジオキシ基、アルケニレン基、アルケニレンジオキシ基、アルキニレン基、アルキニレンジオキシ基、アリーレン基又はアリーレンジオキシ基を示す。但し、R_1～R_6およびXの少なくとも1つは不飽和結合含有基を示す)

ABSTRACT : PROBLEM TO BE SOLVED: To provide a nonaqueous electrolyte and a nonaqueous electrolyte secondary battery, using the electrolyte having superior cycle characteristics and low-temperature characteristics, in which the rate of change of the electric capacity and internal resistance are small during charging and discharging repetition, and the increase in the internal resistance at a lower temperature is small, thereby maintaining high electric capacity.

SOLUTION: This electrolyte, including an electrolyte salt dissolved in an organic solvent, contains a silicon compound having unsaturated bond represented in Formula (1) (wherein R1 to R6 represent alkyl group, alkoxy group, alkenyl group, alkenyloxy group, alkynyl group, alkynyloxy group, aryl group or aryloxy group; these groups may have ether bond in a chain i and n is 0 to 5, when n is 1 to 5; X represents direct bond, oxygen atom, alkylene group, alkylenedioxy group, alkenylene group, alkenylenedioxy group, alkynylene group, alkynylendioxy group, arylene group, or arylenedioxy group, where at least one of R1 to R6 and X represent unsaturated bond containing group.).